

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) An alloy steel composition which includes the following constituents by weight:

carbon	0.5 - 3.5%
silicon	0.2 - 0.8%
manganese	0.5 - 1.5%
nickel	0.1 - 2.0%
chromium	1.0 - 3.0%
molybdenum	0.1 - 0.5%
copper	0.1 - 2.0%

wherein the balance of the composition is composed of iron aside from elements in trace quantities.

2. (original) An alloy steel composition according to claim 1 wherein the percentage composition of nickel is 0.10 - 0.45% by weight.

3. (previously presented) An alloy steel composition according to claim 1 wherein the percentage composition of copper is 0.10 - 0.45% by weight.

4. (currently amended) A metal casting produced from an alloy steel composition which includes the following constituents by weight:

carbon	0.5 - 3.5%
silicon	0.2 - 0.8%
manganese	0.5 - 1.5%
nickel	0.1 - 2.0%
chromium	1.0 - 3.0%
molybdenum	0.1 - 0.5%
copper	0.1 - 2.0%

wherein the balance of the composition is composed of iron aside from elements in trace quantities.

5. (currently amended) A metal casting according to claim 4 which has a ~~substantially~~ pearlitic microstructure throughout its entirety.

6. (previously presented) A metal casting according to claim 4 wherein the hardness of the casting is greater than 310 HB.

7. (previously presented) A metal casting according to claim 4 wherein the hardness of the casting is greater than 335 HB.

8. (original) A metal casting according to claim 4 for use in applications, which result in high wear upon the casting.

9. (original) A metal casting according to claim 8 for use as components in autogenous grinding mills, semi-autogenous grinding mills or ball mills.

10. (original) A metal casting according to claim 9 wherein the component is any component subject to wear.

11. (previously presented) A metal casting according to claim 9 wherein the components are lifter bars, liners, pulp lifters and/or grates.

12. (currently amended) A metal casting according to claim 8 wherein, after about 50 to 100 mm of wear has occurred on the casting, the hardness of the casting is greater than 310 HB ~~and preferably greater than 330 HB.~~

13. (withdrawn) A method of producing a metal casting ~~composed of the alloy steel composition according to any one of claims 1 to 3~~ of an alloy steel composition which includes the following constituents by weight:

carbon 0.5 - 3.5%

silicon 0.2 - 0.8%

manganese 0.5 - 1.5%

nickel 0.1 - 2.0%

chromium 1.0 - 3.0%

molybdenum 0.1 - 0.5%

copper 0.1 - 2.0%

wherein the balance of the composition is composed of iron aside from elements in trace quantities, characterized by the steps of:

i. pouring the molten alloy composition into a metal casting mould;

ii. cooling the metal casting at ambient temperature; and

iii. grind casting and gauge to profile.

14. (withdrawn) A method according to claim 13 which includes the step of air blasting when the metal casting is greater than 300 mm in thickness.

15. (withdrawn) A method according to claim 14 which includes the step of tempering at about 580°C.

16. (currently amended) An alloy steel composition which includes the following constituents by weight:

carbon	0.8 - 0.85%
silicon	0.42 - 0.48%
manganese	0.85 - 0.95%
nickel	0.32 - 0.38%
chromium	2.05 - 2.25%
molybdenum	0.30 - 0.37%
copper	0.32 - 0.38%

wherein the balance of the composition is composed of iron aside from elements in trace quantities.

17. (new) The metal casting according to claim 12 wherein, after about 50 to 100 mm of wear has occurred on the casting, the hardness of the casting is greater than 330 HB.